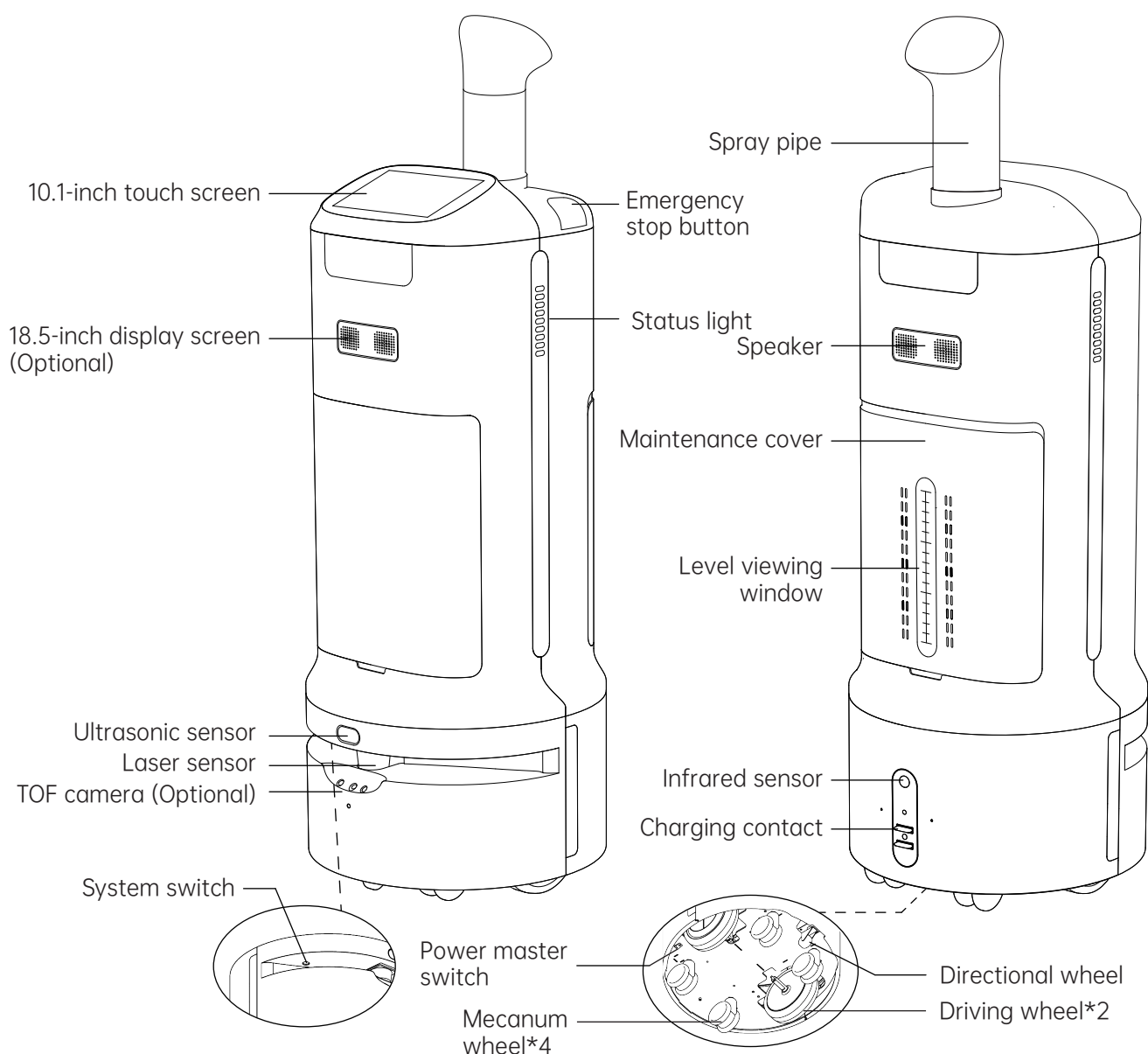


# Specification of Spray Robot

## I. Product Overview

The spray robot performs smart sterilization of spaces with the combined use of SLAM and traditional sterilization technologies. Using ultrasonic atomization technology, it atomizes disinfectant into micro-sized particles, which disperse in air in the form of aerosol and kill pathogenic microorganisms, thus achieving the purpose of sterilization. The robot can work and get charged automatically. It can also upload information on its running status, operating status and task implementation in real time. Users can locally or remotely assign sterilization tasks so that the robot will fulfill the sterilization tasks actively, efficiently and accurately. The spray sterilization robot, which is widely applied in hospitals, schools, hotels, office buildings, factories and supermarkets, effectively improves sterilization efficiency and guarantees public health security in places where it is used.

## II. Product Appearance



\* These specifications apply to ME1252C series robots.

### III. Product Parameters

|                    |                                 |  |
|--------------------|---------------------------------|--|
| Basic parameters   | Overall dimension               | 500mm×500mm×1182mm (excluding spray cylinder)  |
|                    |                                 | 500mm×500mm×1430mm (including spray cylinder)  |
|                    | Package dimension               | 620mm×620mm×1500mm   |
|                    | Net weight                      | 59.5kg   |
|                    | Gross weight                    | 71.5kg   |
|                    | Operating system                | Android 7.1  |
|                    | Touch screen                    | 10.1-inch; resolution: 1280×800  |
|                    | CPU                             | RK3288   |
|                    | RAM                             | 2GB  |
|                    | ROM                             | 8GB  |
|                    | Network                         | 4G/WIFI  |
|                    | Battery capacity                | 24V, 20Ah  |
|                    | Working hours                   | 4h   |
|                    | Charging time                   | 4.5h   |
|                    | Standby time                    | 13h  |
|                    | Speaker                         | 2  |
|                    | Noise                           | ≤50dB (work normally in case of no broadcast)  |
| Environment        | Operating environment           | Temperature: 5°C~45°C; humidity: 5% ~ 85%  |
|                    | Storage environment             | Temperature: -10°C~60°C (without liquid residue in chamber and pipe); humidity: 5% ~ 85% |
| Chassis parameters | Mapped area                     | ≤10000m <sup>2</sup>   |
|                    | Applicable area                 | ≤1000m <sup>2</sup> (calculated based on 4m floor height)                                |
|                    | Movement speed                  | 0~0.8m/s (user-defined)  |
|                    | Width of driving passage        | ≥800mm   |
|                    | Sensor                          | Single-line laser, RGBD TOF camera (optional), ultra-sonic wave, 6-axis gyroscope        |
|                    | Width of surmountable trench    | ≤40mm  |
|                    | Climbability                    | ≤5°  |
|                    | Height of surmountable obstacle | ≤10mm  |
|                    | Minimum turning radius          | 0  |
|                    | Maximum rotational speed        | 60°/s  |
|                    | Positioning accuracy            | ±5cm   |

|                              |                        |                            |  |
|------------------------------|------------------------|----------------------------|--|
|                              | Wheels                 |                            | 2 differential wheels + 4 mecanum wheels + 1 auxiliary directional wheel |
| Parameters of charging piles | Charging mode          |                            | Automatic recharging by contact  |
|                              | Input                  |                            | AC110-240V   |
|                              | Output                 |                            | 29.4V, 7A  |
| Sterilization parameters     | Sterilization method   |                            | Ultrasonic atomization   |
|                              | Atomization parameters | Atomizer specification     | 4-head   |
|                              |                        | Atomization efficiency     | 1.5h/L   |
|                              |                        | Size of atomized particles | <10um  |
|                              |                        | Disinfectant               | Sodium hypochlorite solution (concentration≤200ppm)                      |
|                              |                        | Tank volume                | 10L  |

## IV. Product Functions

|                                   |  |   |
|-----------------------------------|--|---|
| Sterilization                     | Sterilization method                   | Using ultrasonic atomization technology, the robot atomizes disinfectant into micro-sized particles, which disperse in air in the form of aerosol and kill pathogenic microorganisms, thus achieving the purpose of sterilization |
| Automatic charging                | Automatic recharge for low battery     | When its electric quantity is below the preset value, the robot will return to the charging pile for charging   |
|                                   | Return to a charging pile at free time | The robot will automatically return to the charging pile for charging at the end of a task or at free time  |
| Operation                         | User-defined task                      | The robot can define path, time and location for a sterilization task by software   |
| Navigation and obstacle avoidance | Fully automatic navigation             | The robot can navigate according to location, time, path and automatically planned route for a task   |
|                                   | Automatic obstacle avoidance           | In executing a task, the robot can automatically move across obstacles it senses  |

## **FCC compliance statement**

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

**Note:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**Important:** Changes or modifications to this product not authorized by Shenzhen CIOT Robotics Co., Ltd could void the electromagnetic compatibility (EMC) and wireless compliance and negate your authority to operate the product.

This product has demonstrated EMC compliance under conditions that included the use of compliant peripheral devices and shielded cables between system components. It is important that you use compliant peripheral devices and shielded cables between system components to reduce the possibility of causing interference to radios, televisions, and other electronic devices.

## **RF Exposure Statement:**

To maintain compliance with FCC's RF Exposure guidelines, This equipment should be installed and operated with minimum

distance between 20cm the radiator your body.

Use only the supplied antenna.

FCC ID: 2A5WH-ME1252C001F7